AMENDMENTS TO THE CLAIMS

The following is a complete listing of revised claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (Currently Amended)   A method for the compensation of image disturbances in the course of radiation image recording caused by defocusing of an antiscatter grid, arranged in the beam path between a beam source and a digital radiation image receiver and focused with respect to a specific distance from a focus of the beam source, the image disturbances being caused by a defocusing-dictated attenuation of primary radiation incident on the radiation image receiver, an image detector including radiation-sensitive pixels arranged in matrix form and a device for pixelwise amplification of the radiation-dependent signals, the method comprising:

amplifying at least some of the signals supplied <u>by the digital radiation image receiver</u> in pixelwise fashion, in a manner dependent on an actual distance of the antiscatter grid from the focus.

2. (Currently Amended)   The method as claimed in claim 1, wherein pixel-related gain factors<u>, by which the at least some of the signals are amplified,</u> are determined computationally for the given actual distance of the antiscatter grid from the focus relative to the original focusing distance.

3. (Currently Amended)   The method as claimed in claim 1, wherein ~~the~~ pixelwise gain factors<u>, by which the at least some of the signals are amplified,</u> are chosen from a table assigned to the actual distance of the antiscatter grid from the focus.

4.   (Original)   The method as claimed in claim 3, wherein, in the case of a difference between the actual distance and the distance on which the table is based, the gain factors are adapted computationally.

5.   (Original)   The method as claimed in claim 1, wherein only the pixel signals of those pixels whose signals, relative to the defocusing-dictated signal attenuation exclusively of the antiscatter grid, lie below a predetermined threshold value are amplified.

6.   (Original)   The method as claimed in claim 5, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

7.   (Currently Amended)   The method as claimed in claim ~~1~~2, wherein the signals are amplified by the gain factors to a predetermined threshold value.

8.   (Original)   The method as claimed in claim 7, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

9.   (Original)   The method as claimed in claim 5, wherein the threshold value is adjustable.

10.   (Currently Amended)   An apparatus for radiation image recording, comprising:

a beam source including a focus;

a digital radiation image receiver with radiation-sensitive pixels arranged in matrix form with an assigned device for the pixelwise amplification of the pixel signals; and

an antiscatter grid, arranged between the beam source and the digital radiation image receiver, the antiscatter grid being focused with respect to a specific distance from the focus of the beam source, wherein the assigned device is designed for compensation of image disturbances caused by a

defocusing of the antiscatter grid, the image disturbances being caused by a defocusing-dictated attenuation of the primary radiation incident on the digital radiation image receiver, for pixelwise amplification of at least some of the signals supplied <u>by the digital radiation image receiver</u> in a manner dependent on the actual distance of the antiscatter grid from the focus.

11. (Currently Amended) The apparatus as claimed in claim 10, wherein the assigned device is designed for the computational determination of <s>the</s> pixel-related gain factors<u>, by which the at least some of the signals are amplified,</u> for the given actual distance of the antiscatter grid from the focus relative to the original focusing distance.

12. (Currently Amended) The apparatus as claimed in claim 10, wherein at least one table with pixel-specific gain factors, assigned to at least one specific distance of the antiscatter grid from the focus<u> and by which the at least some of the signals are amplified,</u>, is stored in the assigned device, the assigned device choosing the pixelwise gain factors from a table assigned to the actual distance of the antiscatter grid from the focus.

13. (Original) The apparatus as claimed in claim 12, wherein the assigned device is designed for the computational adaptation of the gain factors taken from the chosen table in the case of a difference between the actual distance and the distance on which the table is based.

14. (Original) The apparatus as claimed in claim 10, wherein the assigned device is designed for the amplification of the pixel signals only of those pixels whose signals, relative to the defocusing-dictated signal attenuation exclusively of the antiscatter grid, lie below a predetermined threshold value.

15. (Original) The apparatus as claimed in claim 14, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

16.   (Original)   The apparatus as claimed in claims 10, wherein the assigned device is designed for the amplification of the signals to a predetermined threshold value.

17.   (Original)   The apparatus as claimed in claim 16, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

18.   (Original)   The apparatus as claimed in claim 14, wherein the threshold value is adjustable.

19.   (Original)   The apparatus as claimed in claim 10, wherein the antiscatter grid is at least one of a linear grid with focused absorption lamellae and a cell grid with a carrier structure defining the focused rectangular cells with a beam passage opening with an absorption coating applied to the inner sides of the carrier structure which face the beam passage openings.

20.   (Original)   The method as claimed in claim 2, wherein only the pixel signals of those pixels whose signals, relative to the defocusing-dictated signal attenuation exclusively of the antiscatter grid, lie below a predetermined threshold value are amplified.

21.   (Original)   The method as claimed in claim 20, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

22.   (Original)   The method as claimed in claim 3, wherein only the pixel signals of those pixels whose signals, relative to the defocusing-dictated signal attenuation exclusively of the antiscatter grid, lie below a predetermined threshold value are amplified.

23. (Original)   The method as claimed in claim 22, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

24. (Original)   The method as claimed in claim 4, wherein only the pixel signals of those pixels whose signals, relative to the defocusing-dictated signal attenuation exclusively of the antiscatter grid, lie below a predetermined threshold value are amplified.

25. (Original)   The method as claimed in claim 24, wherein the threshold value defines a defocusing-dictated attenuation of 40% or less.

26. (Original)   The method as claimed in claim 7, wherein the threshold value is adjustable.

27. (Original)   The apparatus as claimed in claim 16, wherein the threshold value is adjustable.

28. (Original)   The apparatus as claimed in claim 14, wherein the antiscatter grid is at least one of a linear grid with focused absorption lamellae and a cell grid with a carrier structure defining the focused rectangular cells with a beam passage opening with an absorption coating applied to the inner sides of the carrier structure which face the beam passage openings.

29. (Currently Amended)   A method, comprising:
    amplifying at least some of signals supplied in pixelwise fashion to from an a radiation image receiver, in a manner dependent on an actual distance of an antiscatter grid from a focus of a source of a beam; and
    compensating for image disturbances in a radiation image recording based upon the amplifying, the image disturbances being caused by defocusing of the antiscatter grid, arranged in a beam path and focused with respect to a specific distance from the focus of a the source of the beam, and by a

defocusing-dictated attenuation of primary radiation incident on the radiation image receiver.

30. (Currently Amended)   An apparatus for radiation image recording, comprising:

means for generating a beam including a focus;

means for detecting the beam, including radiation-sensitive pixels arranged in matrix form, and including means for the pixelwise amplification of the pixel signals; and

an antiscatter grid, arranged between the means for generating a beam and the means for detecting, the antiscatter grid being focused with respect to a specific distance from the focus of the means for generating the beam, wherein the means for the pixelwise amplification is designed for compensation of image disturbances caused by a defocusing of the antiscatter grid, the image disturbances being caused by a defocusing-dictated attenuation of primary radiation incident on the means for detecting, for pixelwise amplification of at least some of the signals supplied by the means for detecting in a manner dependent on the actual distance of the antiscatter grid from the focus.